

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
PUBLIC UTILITIES COMMISSION

IN RE: APPLICATION FOR STANDARD CERTIFICATION : DOCKET NO. 4497
AS ELIGIBLE RENEWABLE ENERGY RESOURCE :
FILED BY COVANTA MAINE, LLC :
NEW AND EXISTING GENERATION :

ORDER

I. Overview

On March 31, 2014, Covanta Maine, LLC¹ (Applicant), filed with the Public Utilities Commission (PUC or Commission) an application seeking certification for its Covanta Jonesboro Generation Unit (Jonesboro), a 27.5 MW Eligible Biomass energy Generation Unit located in Jonesboro, Maine as an eligible Renewable Energy Resource in accordance with the PUC's Rules and Regulations Governing the Implementation of a Renewable Energy Standard (RES Regulations) and R.I. Gen. Laws §39-26-1. The Applicant claimed that Jonesboro, a facility that was constructed and operational prior to 1997, now qualified as no less than 96% and up to 97% New Renewable Energy Resource as a result of capital investments in the facility made after 1997.² Pursuant to Section 6.0 of the RES Regulations, a thirty-day period for public comment was provided; during such time, no comments were received.

Subsequently, the PUC's consulting firm, GDS Associates, Inc. (Consultant), reviewed the filing and worked with the Applicant in an attempt to verify the claimed level of output to qualify as a New Renewable Energy Resource in Rhode Island. The

¹ The authorized representative was identified as: Ken Nyman, Business Manager, 100 Recovery Way, Haverhill, MA 01835. Phone: (978) 241-3030. Email: knydam@covanta.com.

² Application, [http://www.ripuc.org/eventsactions/docket/4497-CovantaJonesboro-Application\(3-31-14\).pdf](http://www.ripuc.org/eventsactions/docket/4497-CovantaJonesboro-Application(3-31-14).pdf); Updated Application, [http://www.ripuc.org/eventsactions/docket/4497-CovantaJonesboro-Application-Updated\(6-9-14\).pdf](http://www.ripuc.org/eventsactions/docket/4497-CovantaJonesboro-Application-Updated(6-9-14).pdf).

Consultant sought information regarding the output from Jonesboro during the period 1995-1997, the Historical Generation Baseline.³ The additional information sought and the analysis conducted by the Consultant was similar to that sought in, and which provided the basis for, the PUC's findings for the Covanta West Enfield facility in 2013, another biomass facility. The analysis considered a modified Historical Generation Baseline in order to account for operational changes that may have been made in response to economic conditions during the historical time period and which are not eligible per Rule 3.23(v) for establishing investment in a New Renewable Energy Resource facility.⁴ In that case, Covanta West Enfield accepted the approach.

II. Request for Declaratory Judgment

In this case, Jonesboro objected to the methodology and, on April 7, 2015, filed a Request for Declaratory Judgment requesting that the PUC: (1) rule that Rule 3.23(v) of the RES Regulations does not permit the consideration of the generic or market

³ Historical Generation Baseline means, for all Eligible Renewable Energy Resources, the average annual electrical production from the Eligible Renewable Energy Resources, stated in MWHs, for the three calendar years 1995 through 1997 or for the first 36 months after the Commercial Operation Date if that date is after December 31, 1994. The Historical Generation Baseline must be measured regardless of whether or not the average annual electrical production during the Baseline Period meets the eligibility requirements of Section 5 of the RES Regulations. Section 5 of the RES Regulations sets forth the types of renewable energy resources eligible for the Renewable Energy Standard and there is no dispute that this facility qualifies. RES Regulation 3.14 is not specific as to how "average annual electric production" should be calculated. The Commission may determine, for example, that an annual-, monthly-, daily-, or hourly-weighted average is appropriate. RES Regulation 3.14 does not limit the Commission's discretion to adjust the current operation to reflect the operational environment that existed during the baseline period. Regulation 3.23(v) requires the Commission to account for differences in the operations environment.

⁴ New Renewable Energy Resources means, for an Existing Renewable Energy Resource other than an Intermittent Resource, the incremental output in any Compliance Year over the Historical Generation Baseline. Such Existing Renewable Energy Resource using Eligible Renewable Energy Resources must be certified by the Commission pursuant to Section 6 to have demonstrably completed capital investments after December 31, 1997. The efficiency improvements or additions of capacity must have been sufficient to, intended to, and be demonstrated to increase annual electricity output in excess of ten percent (10%). *"The determination of incremental production for purposes of this paragraph shall not be based on any operational changes at such facility not directly associated with the efficiency improvements or additions of capacity."* (emphasis added). RES Regulation section 3.23(v). Section 6 of the RES Regulations is the certification process. There is no dispute that capital investment sufficient to, intended to, and demonstrated to increase annual electricity output in excess of 10% was completed. The purpose of the restrictions in the regulation is to ensure that only the increased ability to operate as a result of capital improvements be captured as a New Renewable Energy Resource.

conditions reflected in the Commission's Consultant's information request to the Petitioner and find that Petitioner's Application, as supplemented, provides all necessary information for the Commission to determine the plant's output eligible for treatment as a New Renewable Energy Resource; (2) complete and issue its certification of Petitioner's Eligibility of Renewable Energy Resources for the plant in the amount of at least 96% of the plant's current output; and (3) take such other action as is necessary and appropriate consistent with these requests. Applicant argued that it had made sufficient capital investments to allow Jonesboro to increase annual electricity output in excess of 10% over the Historical Generation Baseline and that, once it had demonstrated that Jonesboro does produce in excess of 10% over the Historical Generation Baseline, the only remaining analysis was a comparison of the amount of electricity produced currently to the average produced during the Historical Generation Baseline, with no further considerations or adjustments.⁵

III. May 20, 2015 Open Meeting

At an Open Meeting held on May 20, 2015, the PUC reviewed the application and Request for Declaratory Judgment and determined that the Applicant had shown that it completed capital investments that increased annual electricity output in excess of 10%. However, the PUC found that there had been no increase in the capacity of the facility. It was a 27.5MW facility both pre-capital investment and post-capital investment. Therefore, there was no increase in the capacity of the facility. In addition, it appeared the heat rate/conversion was unchanged. Therefore, the unit was not really more efficient.

⁵ Request for Declaratory Judgment, http://www.ripuc.org/eventsactions/docket/4497-CovantaMaine_DJRequest_4-3-15.pdf.

However, the capacity factor had increased from a low of 61% pre-capital investment to as high as 78% post capital investment.⁶ The PUC has previously allowed increased efficiency to be demonstrated by a calculation of increased output under similar operating circumstances.

The PUC noted that, according to the application, Jonesboro currently operates as a baseload unit whereas, during the Historical Generation Baseline Period, it operated as a peaking unit. The RES Regulations require the exclusion from the determination of incremental production post capital investment of “operational changes at such facility not directly associated with the efficiency improvements or additions of capacity.”⁷ The change from a peaking unit to baseload unit is an operational change which the Applicant attributed to the capital investments. However, the Applicant has not shown how much of the incremental production over the Historical Generation Baseline is related to operational changes directly associated with the capital investment.

If a facility has undergone sufficient capital investment for the purposes of Rule 3.23(v) and could have operated during the Historical Generation Baseline period as much as it does now, albeit with reduced electricity output, but the operator chose not to, that choice must be excluded from the calculation of the percentage of output post-investment that qualifies as “New.” Those are “operational changes at the facility.”

The PUC unanimously agreed that additional information was needed to determine the amount of incremental production of the facility is directly associated with efficiency improvements or additions of capacity. The question posed was: How much

⁶ Capacity Factor is the ratio of the net electricity generated, for the time considered, to the energy that could have been generated at continuous full-power operation during the same period. United States Nuclear Regulatory Commission Glossary, <http://www.nrc.gov/reading-rm/basic-ref/glossary/capacity-factor-net.html> (last visited Sept. 30, 2015).

⁷ RES Regulations section 3.14, http://www.ripuc.org/rulesregs/commrules/RES_Rules.pdf.

more electricity is produced under the same set of operating conditions after the capital investment relative to the amount produced prior to the capital investment? This was determined to be a measure of the increased efficiency of the facility where the heat rate/conversion appears unchanged and the capacity of the facility is unchanged.

The PUC devised a formula to be applied once sufficient data was made available. The formula takes the current year's production of hours divided by the current hours of operation to calculate the current output during the same number of hours as compared to the output during the same hours during the baseline period.⁸ The PUC directed the Applicant to provide hours of operation and megawatt hours of output during the three-year historical generation baseline. If that information was not available, however, the Applicant was directed to work with the Consultant to find a reasonable proxy. In the meantime, the Declaratory Judgment Petition was held in abeyance.

IV. Consultant's Recommendation

The PUC's Consultant worked with the Applicant to gather information in an attempt to perform the calculation outlined above. From all indications, both the Consultant and the Applicant worked in good faith to meet the PUC's directives. On July 14, 2015, the Consultant provided a calculation recommending that 12% of the plant's

⁸ Specifically, the PUC directed as follows: (1) In the event acceptable data is supplied, the PUC Consultant should calculate the average annual hours of operation during the baseline period. (2) The current-year production (MWH) should be divided by the current-year hours of operation. (3) The production calculated in Step 2 should be multiplied by the average annual hours of operation calculated in Step 1. (4) The Consultant must also calculate either the annual average or hourly-weighted annual average generation during the baseline period (in MWH). (5) The production calculated in Step 3 less the production calculated in Step 4 may be considered the non-operation additional capacity resulting from capital investments. This difference divided by the value calculated in Step 3 (multiplied by 100) may be considered the "percentage new" due solely to capital investments for the purposes of registering some portion of the current facility as a New Renewable Resource in Rhode Island.

capacity would qualify as “New.”⁹ The Applicant was allowed 10 days to object or otherwise respond. On July 27, 2015, the Applicant filed a timely response.

The Applicant’s primary objection was the PUC finding that operational changes had been made at the plant, requiring an adjustment. According to the Applicant, there were no operational changes at the plant and all incremental production over the Historical Generation Baseline year should be considered “New.” Specifically, the Applicant stated that “at all relevant times, the plant has been maintained and operated as a ‘baseload’ unit.”¹⁰ Again, the Applicant argued that the math should simply compare the amount of current production to the production during the Historical Generation Baseline with no further adjustments, resulting in at least 96% qualified as a New Renewable Energy Resource. A secondary objection was to the Consultant’s implementation of an assumed fuel use and heat rate in the calculation provided to the PUC.¹¹

V. Commission Findings

At an Open Meeting held on September 16, 2015, the PUC considered the Application, the Consultant’s recommendation, and the Applicant’s response. The PUC found that, contrary to the Applicant’s response, the plant has not operated as a baseload unit at all relevant times. The suggestion that the plant has run as a baseload unit at all relevant times is in direct contradiction to the initial application filed by the Applicant. A

⁹ Electronic Mail from Scott Albert to PUC with attachment, Jul. 14, 2015, <http://www.ripuc.org/eventsactions/docket/4497-Consultant-DR-Covanta.pdf>.

¹⁰ Response at 4, http://www.ripuc.org/eventsactions/docket/4497-Covanta-Memo-Response-Consultant_7-27-15.pdf.

¹¹ One measure of the efficiency of a generator or power plant that converts a fuel into heat and into electricity is the *heat rate*. The heat rate is the amount of energy used by an electrical generator or power plant to generate one kilowatt hour (kWh) of electricity. U.S. Energy Information Administration Frequently Asked Questions, <http://www.eia.gov/tools/faqs/faq.cfm?id=107&t=3> (last visited Sept. 30, 2015).

review of the initial application reveals that the Applicant broke the generation history down into five separate periods: baseload, peaking, shut down, peaking, and baseload.¹² The relevant period for purposes of Historical Generation Baseline fall into the shut down and peaking periods. The Applicant's stated reason for shutting the plant down and then running it as a peaking unit was that was the only way to run the plant "economically."¹³ It is only in its most recent filing that the Applicant has alleged no operational changes at the plant. The documentation attached to the Applicant shows that the plant was on Cold Standby in 1995, Out of Service in 1996, and Operating in 1997. These appear to be different operational statuses that, according to the application, were based on economic decisions.¹⁴ Per the RES Rules, it is precisely those operational decisions that need to be corrected for in determining the percentage "New."

A review of the information provided shows that the Applicant provided days of operation and alleged that hours of operation were unavailable. Additionally, while the Consultant's use of an assumed fuel use and heat rate will likely produce a more accurate measure of actual experience during the Historical Generation Baseline against which to compare current output, the PUC decided to calculate the New and Existing percentages in the light most favorable to the Applicant.

First, the PUC's calculation uses twenty-four hours of running time in each day.¹⁵ Second, the calculation applies a simple average to compute the Historical Generation Baseline averages, assuaging the Applicant's concern that the consultant's calculation did

¹² Application at 4.

¹³ *Id.*

¹⁴ Response Attachment; Application at 4

¹⁵ Assuming the plant was as inefficient as possible during the baseline period (i.e., the energy generation during the Historical Generation Baseline took all day to produce, rather than a few hours to produce) will result the maximum possible percentage new. A mathematical consequence of the assumption that an operating day is twenty-four hours long (rather than a few hours long) is that the resulting percentage "New" is the same whether we do the calculation using hours or days.

not give the benefit in the Historical Generation Baseline to 1996 where no generation was recorded.¹⁶ Third, the current calculation ignores assumptions regarding fuel use and heat rate, notwithstanding that when the RES Regulations were created, the participants agreed that the percent new calculation should be based on the increase in output in any particular year given the same level of input.¹⁷

The following represents the calculation of the New and Existing Renewable Energy Resource percentages, applying available information in the light most favorable to the Applicant.

1. In the event acceptable data is supplied, the PUC Consultant should calculate the average annual hours of operation during the baseline period.

Year	1995	1996	1997	Mean
Operating Days	25	0	57	27.3333
Operating Hours (Days*24)	600	0	1368	656

→ $(600+0+1368)/3 = 656$ hours (h) run during the historical baseline

2. The current-year production (MWH) should be divided by the current-year hours of operation.

→ $221,100 \text{ MWH} / 8040 \text{ h} = 27.5 \text{ MWH/h}$ (Application at 2)

3. The production calculated in Step 2 should be multiplied by the average annual hours of operation calculated in Step 1.

→ $656 \text{ h} * 27.5 \text{ MWH/hour} = 18,040 \text{ MWH}$ (current)

4. The consultant must also calculate the annual average generation during the baseline period (in MWH).¹⁸

Year	1995	1996	1997	Mean
Production (MWH)	5,394	0.0	16,969.0	7454.3333

¹⁶ The plant was out-of-service in 1996, thereby lowering the effective average capacity factor during the Historical Generation Baseline. This makes the older plant configuration appear even more inefficient relative to the new configuration, regardless of whether or not it actually was more inefficient.

¹⁷ Tr. 8/31/05 at 30-31. The Commission expert's calculations that did employ heat rate to create proxy hours of operation during the baseline result in a significantly lower percentage new (12%) than the current calculation.

¹⁸ Hourly-weighted annual average generation could not be computed with the data supplied; arithmetic mean was therefore used, which is also the preference of the Applicant.

→ $(5,394.4 \text{ MWH} + 0 + 16,969.0 \text{ MWH})/3 = 7454.3333 \text{ MWH}$ (baseline or existing)

5. The production calculated in Step 3 less the production calculated in Step 4 may be considered the non-operation additional capacity resulting from capital investments. This difference divided by the value calculated in Step 3 (multiplied by 100) may be considered the “percentage new” due solely to capital investments for the purposes of registering some portion of the current facility as a New Renewable Resource in Rhode Island.

$[(\text{Current} - \text{Existing}) / \text{Current}] * 100 = \text{Percentage New}$

$18,040 \text{ MWH} - 7454.3333 \text{ MWH} = 10,585.6667 \text{ MWH}$ (non-operational new)

→ $(10,949.6 \text{ MWH} / 18,040 \text{ MWH}) * 100 = 58.7\% \text{ New}$

Therefore, the PUC finds that Jonesboro qualifies as an Eligible Renewable Energy Resource under the Renewable Energy Standard and will be certified as 58.7% New and 41.3% Existing. The issue of adjustments to the Historical Generation Baseline is moot because the PUC’s calculation does not make any such adjustments. Finally, if Applicant believes that the relative percentages should be different and if Applicant has additional or actual evidence to show that its availability during the Historical Generation Baseline was due primarily or almost exclusively to actual availability and not to a decision not to operate or run the facility based on economic reasons, it is welcome to request an evidentiary hearing. The purpose of such hearing would be for Applicant to provide proof to support this Commission finding that the facility should be certified to be greater than 58.7% New.

Accordingly, it is

(22123) ORDERED:

- 1) That 58.7% of the monthly Generation from the Covanta Jonesboro Generation Unit meets the requirements for eligibility as a New, Eligible Biomass Renewable Energy Resource with its 27.5 MW, Grid-Connected

Generation having a Commercial Operation Date of November 1, 1987, with numerous and extensive capital improvements performed on the facility since 1997, principally after 2003, and located within the NEPOOL Control Area in Jonesboro, Maine.

- 2) That the designated New percentage of the Applicant's Generation Unit as identified above be assigned unique certification number RI-4497-N15.
- 3) That 41.3% of the monthly generation from the Covanta Jonesboro Generation Unit meets the requirements for eligibility as an Existing, Eligible Biomass Renewable Energy Resource with its 27.5 MW, Grid-Connected Generation having a Commercial Operation Date of November 1, 1987, with numerous and extensive capital improvements performed on the facility since 1997, principally after 2003, and located within the NEPOOL Control Area in Jonesboro, Maine.
- 4) That the designated Existing percentage of the Applicant's Generation Unit as identified above be assigned unique certification number RI-4497-E15.
- 5) The Generation Unit's NEPOOL-GIS Identification Number is MSS446.
- 6) The facility's Renewable Energy Certificates (RECs) become Rhode Island-eligible effective on the first day which the Rhode Island certification number is issued. All RECs associated with the production of New and Existing eligible energy that are minted on or after the Effective Date are eligible for the RES.
- 7) Although the PUC will rely upon the NEPOOL GIS for verification of production of energy from the Applicant's Generation Unit certified as

eligible in this Order, the Applicant will provide information and access as necessary to the PUC, or persons acting at its behest, to conduct audits or site visits to assist in verification of continued eligibility for and compliance with Rhode Island RES Certification at any time at the PUC's discretion. Such continuing verification shall include a quarterly affidavit documenting the use of eligible fuels.

- 8) The Applicant's Request for Protective Order of commercially sensitive information is granted. The PUC finds the information for which confidential treatment is requested would be exempt from public disclosure under Rhode Island General Laws § 38-2-2(4)(B).
- 9) The Applicant shall notify the PUC in the event of a change in the facility's eligibility status.

EFFECTIVE AT WARWICK, RHODE ISLAND ON SEPTEMBER 16, 2015
PURSUANT TO AN OPEN MEETING DECISION. WRITTEN ORDER ISSUED
OCTOBER 2, 2015.

PUBLIC UTILITIES COMMISSION




Margaret E. Curran, Chairperson

*Paul J. Roberti, Commissioner


Herbert F. DeSimone, Jr., Commissioner

* Commissioner Roberti concurs with the decision but is unavailable for signature.

NOTICE OF RIGHT OF APPEAL: Pursuant to R.I. Gen. Laws § 39-5-1, any person aggrieved by a decision or order of the PUC may, within seven days (7) from the date of the order, petition the Supreme Court for a Writ of Certiorari to review the legality and reasonableness of the decision or order.